



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2023-0931; Project Identifier MCAI-2022-00653-R]

RIN 2120-AA64

Airworthiness Directives; Airbus Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to supersede Airworthiness Directive (AD) 2021-05-03, which applies to certain Airbus Helicopters Model EC225LP helicopters. AD 2021-05-03 requires various inspections of a certain part-numbered left-hand (LH) engine fuel supply (fuel supply) hose and depending on the inspection results, reinstalling or removing the fuel supply hose from service. AD 2021-05-03 also requires installing an improved part and prohibits installing an affected fuel supply hose on any helicopter unless it is installed by following certain procedures. Since the FAA issued AD 2021-05-03, there were reports of difficulties using an adjusting tool to install the improved fuel supply hose. This proposed AD would continue to require the actions of 2021-05-03 and expand the applicability, expand the parts installation limitations, and require using an improved adjusting tool and updated procedures. This proposed AD would also update certain compliance times and clarify certain requirements. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to [regulations.gov](https://www.regulations.gov). Follow the instructions for submitting comments.
- Fax: (202) 493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

AD Docket: You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-0931; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, any comments received, and other information. The street address for Docket Operations is listed above.

Material Incorporated by Reference:

- For Airbus Helicopters service information identified in this NPRM, contact Airbus Helicopters, 2701 North Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at airbus.com/helicopters/services/technical-support.html.

- You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

Other Related Service Information: Other Airbus Helicopters service information identified in this NPRM is available at the Airbus Helicopters contact information under *Material Incorporated by Reference* above. You may also view this service information at the FAA contact information under *Material Incorporated by Reference* above.

FOR FURTHER INFORMATION CONTACT: Hal Jensen, Aerospace Engineer, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 26805 E 68th

Ave., Mail Stop: Room 214, Denver, CO 80249; telephone (303) 342-1080; email hal.jensen@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2023-0931; Project Identifier MCAI-2022-00653-R” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to [regulations.gov](https://www.regulations.gov), including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Hal Jensen, Aerospace Engineer, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 26805 E 68th Ave., Mail Stop: Room 214, Denver, CO 80249; telephone (303) 342-1080; email hal.jensen@faa.gov. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

The FAA issued AD 2021-05-03, Amendment 39-21864 (86 FR 72824, December 23, 2021) (AD 2021-05-03), for certain Airbus Helicopters Model EC225LP helicopters. AD 2021-05-03 requires visually inspecting a certain part-numbered LH fuel supply hose for twisting, and if needed, borescope inspecting the entire length of the inside of the fuel supply hose for twisting. Depending on the inspection results, AD 2021-05-03 requires reinstalling or removing the fuel supply hose from service. Additionally, AD 2021-05-03 prohibits installing that part-numbered LH fuel supply hose on any helicopter unless that LH fuel supply hose is installed by following certain procedures described in the manufacturer's service bulletin. Finally, AD 2021-05-03 also requires modifying your helicopter by removing LH fuel supply hose part number (P/N) 704A34416087 from service and installing the improved LH fuel supply hose P/N 704A34416101.

AD 2021-05-03 was prompted by EASA AD 2021-0156, dated July 2, 2021 (EASA AD 2021-0156), which superseded EASA AD 2019-0092, dated April 26, 2019 (EASA AD 2019-0092), issued by EASA, which is the Technical Agent for the Member States of the European Union, to correct an unsafe condition for all Airbus Helicopters Model EC 225 LP helicopters. EASA initially advised of a report that an LH side engine experienced a power loss during an in-flight single engine power check. EASA stated that a subsequent investigation determined that the fuel flow to the affected engine was restricted by a twisted fuel supply hose. EASA later advised that Airbus Helicopters had developed an improved fuel supply hose P/N 704A34416101 and modification instructions to install the improved part. This condition, if not addressed, could lead to a decrease of the LH engine power when accelerating to the power setting corresponding to One Engine Inoperative power and subsequent reduced control of the helicopter.

EASA AD 2021-0156 retained the requirements of EASA AD 2019-0092 and required replacing the affected part with the improved part. EASA AD 2021-0156 also allowed a terminating action for the inspection requirements once the improved part had been installed according to the installation requirements.

Actions Since AD 2021-05-03 Was Issued

Since the FAA issued AD 2021-05-03, EASA issued AD 2022-0087, dated May 16, 2022 (EASA AD 2022-0087) to supersede EASA AD 2021-0156. EASA advises of difficulties that were reported during installation of the improved LH fuel supply hose due to using an inappropriately shaped adjusting tool. Accordingly, EASA AD 2022-0087 retains the requirements of EASA AD 2021-0156 and requires replacing the affected part with the improved part by following updated modification instructions and using an improved adjusting tool. The updated modification instructions also specify updated torque values for the junction nuts and re-tightening instructions for helicopters modified with previous instructions. EASA AD 2022-0087 requires a repetitive inspection for fuel leakage for those helicopters modified with previous instructions and considers the re-tightening of the junction nuts of the improved part as terminating action for the repetitive inspection requirements.

Accordingly, this proposed AD would expand the applicability of AD 2021-05-03 by adding LH fuel supply hose P/N 704A34416101. The FAA also determined to update certain compliance times by adding calendar compliance times to factor in varying fleet usage and clarified the actions in paragraphs (g)(1)(i) and (ii) of AD 2021-05-03. This proposed AD also updates the parts installation limitations for LH fuel supply hose P/N 704A34416087 and adds parts installation limitations for LH fuel supply hose P/N 704A34416101. Lastly, this NPRM updates the Costs of Compliance section by correcting the number of work-hours to replace an LH fuel supply hose.

FAA's Determination

These helicopters been approved by EASA and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with the European Union, EASA has notified the FAA about the unsafe condition described in its AD. The FAA is proposing this AD after evaluating all known relevant information and determining that the unsafe condition described previously is likely to exist or develop on other helicopters of the same type design.

Related Service Information Under 1 CFR Part 51

The FAA reviewed Airbus Helicopters Alert Service Bulletin (ASB) No. EC225-28A026, Revision 1, dated May 6, 2022 (ASB EC225-28A026 Rev 1), which specifies

procedures for modifying the adjusting tool and replacing the LH fuel supply hose by using the modified adjusting tool. ASB EC225-28A026 Rev 1 also specifies updated allowable torque limits for the junction nuts and, for helicopters that have previously accomplished Airbus Helicopters ASB No. EC225-28A026, Revision 0, dated May 21, 2021, ASB EC225-28A026 Rev 1 specifies procedures to repetitively inspect the junction nuts for fuel leakage until the LH engine is removed and the updated allowable torque limit is applied to the junction nuts.

This proposed AD would also require Airbus Helicopters ASB No. EC225-71A019, Revision 2, dated May 21, 2021, which the Director of the Federal Register approved for incorporation by reference as of January 27, 2022 (86 FR 72824, December 23, 2021).

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Other Related Service Information

The FAA also reviewed Airbus Helicopters ASB No. EC225-71A019, Revision 1, dated February 28, 2019. This service information specifies procedures for removing the fuel supply hose from the LH power plant, visually inspecting the fuel supply hose for twisting, and depending on inspection results, performing an endoscope inspection on the inside of the hose.

Proposed AD Requirements in this NPRM

For helicopters with LH fuel supply hose P/N 704A34416087 installed, this proposed AD would require visually inspecting the LH fuel supply hose for twisting, and if needed, borescope inspecting the entire length of the inside of the fuel supply hose for twisting. Depending on the inspection results, this proposed AD would require reinstalling or removing the fuel supply hose from service. This proposed AD would also require modifying your helicopter by removing LH fuel supply hose P/N 704A34416087 from service and installing improved LH fuel supply hose P/N 704A34416101 using updated procedures. Additionally, for helicopters modified with the improved LH fuel supply hose P/N 704A34416101 using previous procedures or if the installation

procedures cannot be determined, this proposed AD would require repetitive inspections for fuel leakage and, depending on the results, tightening the junction nuts of this improved fuel supply hose with the LH side engine removed. Tightening the junction nuts would provide terminating action for the repetitive fuel leakage inspections. Lastly, this proposed AD would require installation limitations for LH fuel supply hose P/N 704A34416087 and LH fuel supply hose P/N 704A34416101.

Differences Between this Proposed AD and the EASA AD

EASA AD 2022-0087 is applicable to all serial-numbered Model EC225LP helicopters, whereas this proposed AD would apply to Model EC225LP helicopters with certain part-numbered LH fuel supply hoses installed.

For helicopters modified with LH fuel supply hose P/N 704A34416101 in accordance with previous instructions or by installation of AH modification 0728745 prior to initial delivery of the helicopter from the manufacturer, EASA AD 2022-0087 requires re-tightening the junction nuts to the new torque values during the next (re)installation of the LH engine or of the improved fuel supply hose, whereas this proposed AD would require that action within 110 hours time-in-service with the LH side engine removed for helicopters with LH fuel supply hose P/N 704A34416101 installed with previous instructions, by installation of AH modification 0728745 prior to initial delivery of the helicopter from the manufacturer, or if the previously accomplished installation procedures cannot be determined. Also, for those helicopters, depending on the interim fuel leakage inspection results, EASA AD 2022-0087 requires corrective action in accordance with approved maintenance instructions, whereas this proposed AD would require tightening the junction nuts to the new torque values with the LH engine removed.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect up to 28 helicopters of U.S. Registry. Labor rates are estimated at \$85 per work-hour. Based on

these numbers, the FAA estimates the following costs to comply with this proposed AD.

Visually inspecting the LH fuel supply hose for twisting would take about 1 work-hour for an estimated cost of \$85 per helicopter and \$2,380 for the U.S. fleet. Borescope inspecting the LH fuel supply hose would take about 8 work-hours for an estimated cost of \$680 per helicopter.

Replacing an LH fuel supply hose would take up to 11 work-hours and parts would cost about \$2,363 for an estimated replacement cost of \$3,298 per replacement.

Inspecting for fuel leakage would take about 1 work-hour for an estimated cost of \$85 per helicopter, per inspection cycle. Removing the LH engine and tightening the LH fuel supply hose fittings would take 8 work-hours for an estimated cost of \$680 per helicopter.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Would not affect intrastate aviation in Alaska, and
- (3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by:

- a. Removing Airworthiness Directive 2021-05-03, Amendment 39-21864 (86 FR 72824, December 23, 2021); and
- b. Adding the following new airworthiness directive:

Airbus Helicopters: Docket No. FAA-2023-0931; Project Identifier MCAI-2022-00653-R.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD replaces AD 2021-05-03, Amendment 39-21864 (86 FR 72824, December 23, 2021).

(c) Applicability

This AD applies to Airbus Helicopters Model EC225LP helicopters, certificated in any category, with a left-hand side (LH) engine fuel supply (fuel supply) hose part number (P/N) 704A34416087 or P/N 704A34416101 installed.

(d) Subject

Joint Aircraft Service Component (JASC) Code: 2820, Aircraft Fuel Distribution System.

(e) Unsafe Condition

This AD was prompted by a report of an incorrect installation of the LH fuel supply hose P/N 704A34416087. The FAA is issuing this AD to prevent restricted fuel flow to the LH engine. The unsafe condition, if not addressed, could result in a decrease of the LH engine power when accelerating to a power setting corresponding to One Engine Inoperative power and subsequent reduced control of the helicopter.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

(1) For helicopters with LH fuel supply hose P/N 704A34416087 installed, within 110 hours time-in-service (TIS) or 6 months after the effective date of this AD, whichever occurs first, visually inspect the LH fuel supply hose for twisting as shown in Figures 1 and 2 of Airbus Helicopters Alert Service Bulletin (ASB) No. EC225-71A019, Revision 2, dated May 21, 2021 (ASB EC225-71A019 Rev 2). If the LH fuel supply hose has any twisting or if it cannot be determined if the LH fuel supply hose has any twisting, before further flight, borescope inspect the entire length of the inside of the fuel supply hose for twisting as shown in Figures 3 through 5 of ASB EC225-71A019 Rev 2.

(i) If the inside of the LH fuel supply hose has any twisting, before further flight, remove the LH fuel supply hose from service and install an airworthy LH fuel supply hose in accordance with the actions required by paragraphs (g)(2) or (4) of this AD.

(ii) If the inside of the LH fuel supply hose does not have any twisting, reinstall the LH fuel supply hose by following the Accomplishment Instructions, paragraph 3.B.3.b., of ASB EC225-71A019 Rev 2.

(2) For helicopters with LH fuel supply hose P/N 704A34416087 installed, within 1,200 hours TIS or 36 months after the effective date of this AD, whichever occurs first, modify your helicopter by removing from service LH fuel supply hose P/N 704A34416087 and installing LH fuel supply hose P/N 704A34416101 in accordance

with the Accomplishment Instructions, paragraph 3.B.2.b., of Airbus Helicopters ASB No. EC225-28A026, Revision 1, dated May 6, 2022 (ASB EC225-28A026 Rev 1).

(3) For helicopters with LH fuel supply hose P/N 704A34416101 previously installed by accomplishing Airbus Helicopters ASB No. EC225-28A026, Revision 0, dated May 21, 2021, by installation of AH modification 0728745 prior to initial delivery of the helicopter from the manufacturer, or if the previously accomplished installation procedures cannot be determined, accomplish the actions required by paragraph (g)(3)(i) of this AD.

(i) Within 15 hours TIS or 7 days after the effective date of this AD, whichever occurs first, and thereafter at intervals not to exceed 15 hours TIS or 7 days, whichever occurs first, inspect the LH fuel supply hose for fuel leakage in the area of each junction nut (items 1a and 1b) as depicted in Figure 1 of ASB EC225-28A026 Rev 1.

(A) If there is any fuel leakage, before further flight, remove the LH side engine and tighten each junction nut (items 1a and 1b) of the LH fuel supply hose by applying the torque depicted in Figure 1 of ASB EC225-28A026 Rev 1.

(B) If there is no fuel leakage, within 110 hours TIS after the effective date of this AD, remove the LH side engine and tighten each junction nut (items 1a and 1b) of the LH fuel supply hose by applying the torque depicted in Figure 1 of ASB EC225-28A026 Rev 1.

(ii) Tightening the junction nuts as required by paragraphs (g)(3)(i)(A) and (B) of this AD constitutes terminating action for the repetitive inspection required by paragraph (g)(3)(i) of this AD.

(4) For helicopters with LH fuel supply hose P/N 704A34416087 installed, as of the effective date of this AD, you may replace an LH fuel supply hose P/N 704A34416087 with an LH fuel supply hose P/N 704A34416087 or reinstall an LH fuel supply hose P/N 704A34416087 on any helicopter by following the Accomplishment Instructions, paragraph 3.B.3.b., of ASB EC225-71A019 Rev 2, until required to install LH fuel supply hose P/N 704A34416101 by paragraph (g)(2) of this AD, provided one of the conditions in paragraphs (g)(4)(i) through (iii) of this AD is met.

(i) If installing, the LH fuel supply hose P/N 704A34416087 is new (zero total hours TIS).

(ii) If reinstalling, before reinstallation, the LH fuel supply hose P/N 704A34416087 is inspected by accomplishing the actions required by the introductory text of paragraph (g)(1) of this AD and the inside of the LH fuel supply hose does not have any twisting.

(iii) If reinstalling, the initial delivery of the helicopter from the manufacturer was on or after November 30, 2018, and the LH fuel supply hose P/N 704A34416087 has never been previously reinstalled.

(5) For helicopters with an LH fuel supply hose P/N 704A34416101 installed, as of the effective date of this AD, do not remove LH fuel supply hose P/N 704A34416101 and replace it with LH fuel supply hose P/N 704A34416087 and do not install an LH engine with an LH fuel supply hose P/N 704A34416087 installed.

(h) Credit for Previous Actions

This paragraph provides credit for the actions specified in paragraph (g)(1) of this AD, if those actions were performed before the effective date of this AD using Airbus Helicopters ASB No. EC225-71A019, Revision 1, dated February 28, 2019.

(i) Special Flight Permits

Special flight permits may be permitted provided that there are no passengers on board and that helicopters identified in paragraph (g)(3) of this AD have no fuel leakage.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, send it to the attention of the person identified in paragraph (k)(2) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(k) Additional Information

(1) Refer to European Union Aviation Safety Agency (EASA) AD 2022-0087, dated May 16, 2022, for related information. This EASA AD may be found in the AD docket at regulations.gov under Docket No. FAA-2023-0931.

(2) For more information about this AD, contact Hal Jensen, Aerospace Engineer, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 26805 E 68th Ave., Mail Stop: Room 214, Denver, CO 80249; telephone (303) 342-1080; email hal.jensen@faa.gov.

(3) Service information identified in this AD that is not incorporated by reference is available at the contact information specified in paragraphs (1)(5) and (6) of this AD.

(l) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(3) The following service information was approved for IBR on [DATE 35 DAYS AFTER PUBLICATION OF THE FINAL RULE].

(i) Airbus Helicopters Alert Service Bulletin No. EC225-28A026, Revision 1, dated May 6, 2022.

(ii) [Reserved]

(4) The following service information was approved for IBR on January 27, 2022 (86 FR 72824, December 23, 2021).

(i) Airbus Helicopters Alert Service Bulletin No. EC225-71A019, Revision 2, dated May 21, 2021.

(ii) [Reserved]

(5) For Airbus Helicopters service information identified in this AD, contact Airbus Helicopters, 2701 North Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at airbus.com/helicopters/services/technical-support.html.

(6) You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

(7) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email: fr.inspection@nara.gov, or go to: www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued on April 11, 2023.

Christina Underwood, Acting Director,

Compliance & Airworthiness Division,

Aircraft Certification Service.

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